CO-OCCURRENCE OF A MARINE AND A FRESHWATER SPECIES OF LIMNICHIDAE (COLEOPTERA)[1]

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Members of the family Limnichidae are small, riparian beetles often collected on objects (sticks, stones, vegetation, etc.) projecting from the water. Limnichids frequent freshwater habitats except for the subfamily Cephalobyrrhinae which is adapted to tidal mud flats and, hence, termed "marine" although they probably are protected by bubbles on the undersurfaces of various objects when submerged.

On 14 March 1977, I collected *Throscinus politus* Casey (a marine species) and *Eulimnichus ater* (LeC.) (a freshwater species) on San Antonio Bay near the Aransas National Wildlife Refuge, in Aransas Co., Texas. Both species were taken from wood and rocks exposed at low tide or nearshore mud flats. At the time, the only freshwater runoff into the bay was from a single seep a few meters long in which there were several immature crayfish. Upon entering the bay, though, the water was quickly diluted by the seawater and tasted salty just a few centimeters from the mouth of the seep. A "normal" assemblage of marine invertebrates existed on the mud flat and right up to the mouth of the seep.

It is tempting to envision the evolution of a marine existence for the Cephalobyrrhinae by a series of gradual steps from living near streams entering such shallow bays to on-shore windrows of detritus and, finally, to objects intermittently exposed by the gentle tides of these bays. Undoubtedly, heavy rains are an aid in transporting freshwater species into or near the bays.

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